WHAT IS CLAIMED IS:

Sub A1

1. A foam, comprising a blend of a low density polyethylene and an ethylene polymer having a density ranging from greater than 0.94 to about 0.97 grams/cubic centimeter and a melt flow index of greater than 10 g/10 minutes, said ethylene polymer comprising at least one member selected from ethylene/alpha-olefin copolymer, ethylene homopolymer, and blends thereof.

2. The foam of claim 1, wherein the melt flow index of said ethylene polymer is greater than about 12 g/10 minutes.

3. The foam of claim 2, wherein the melt flow index of said ethylene polymer is greater than about 15 g/10 minutes.

4. The foam of claim 1, wherein said ethylene polymer has a density ranging from greater than 0.94 to about 0.96 grams/cubic centimeter.

5. The foam of claim 1, wherein said low density polyethylene is present in said blend at a weight percentage ranging from about 30 to 95 and said ethylene polymer is present in said blend at a weight percentage ranging from about 5 to about 70, said weight percentages based on the total amount of said low density polyethylene and ethylene polymer in said blend.

6. The foam of claim 1, wherein said foam is in the form of a foam sheet having a maximum thickness of about 100 millimeters.

7. The foam of claim 1, wherein said foam has a density ranging from about 10 to about 160 kg/m^3.

Sub A2

8. A method of making a foam, comprising:

a. blending a low density polyethylene and an ethylene polymer having a density ranging from greater than 0.94 to about 0.97 grams/cubic centimeter and a melt flow index of greater than 10 g/10 minutes, said ethylene polymer comprising at least one member selected from ethylene/alpha-olefin copolymer, ethylene homopolymer, and blends thereof;

b. adding a blowing agent to said blend; and

c. causing said blowing agent to expand within said blend, thereby forming a foam.

9. The method of claim 8, wherein the melt flow index of said ethylene polymer is greater than about 12 g/10 minutes.

10. The method of claim 9, wherein the melt flow index of said ethylene polymer is greater than about 15 g/10 minutes.

11. The method of claim 8, wherein said ethylene polymer has a density ranging from greater than 0.94 to about 0.96 grams/cubic centimeter.

12. The method of claim 8, wherein said low density polyethylene is present in said blend at a weight percentage ranging from about 40 to 95 and said ethylene polymer is present in said blend at a weight percentage ranging from about 5 to about 60, said weight percentages based on the total amount of said low density polyethylene and ethylene polymer in said blend.

13. The method of claim 8, wherein said step of causing said blowing agent to expand is accomplished by extruding said blend and blowing agent through a die and into a region of reduced pressure.

14. The method of claim 13, wherein said foam is extruded as a foam sheet having a maximum thickness of about 30 millimeters.

15. The method of claim 8, wherein said foam has a density ranging from about 10 to about 160 kg/m^3.

Add C4

Add B3

Add D4